

Listing of the Claims:

1. (Currently Amended) A wireless signal transmission apparatus for use with a signal source providing first frequency signals, the signal transmission apparatus comprising:

a first transmitter adapted to be coupled to a signal source for receiving first frequency signals, the first transmitter connected to an antenna;

a first oscillator in the first transmitter producing a high frequency carrier signal;

means for combining the high frequency carrier signal with the first frequency signals to form a first modulated signal transmitted by the antenna;

a first receiver remote from the first transmitter connected to an antenna for receiving the first modulated signal; and

means, coupled to the first receiver, for converting the first modulated signal from the high frequency carrier signal of the first transmitter to a second modulated signal including a lower frequency carrier signal in the low end of the FM broadcast frequency band and the first frequency signal in two frequency conversion steps.

2. (Original) The apparatus of claim 1 further comprising:

first selectable means, connected to the first oscillator, for generating one of a plurality of discrete carrier frequencies of at least 900 MHz.

3. (Original) The apparatus of claim 2 wherein the first selectable means comprises means for inputting one of a plurality of discrete voltages to the first oscillator.

4. (Original) The apparatus of claim 2 further comprising:

means for modulating the first frequency signal with the selected carrier frequency of the first oscillator to form the first modulated signal.

5. Canceled.

Application Serial No. 09/903,166
Date February 7, 2005
Reply to Office Action dated October 6, 2004

Page 3 of 10

6. Canceled.

7. (Currently Amended) ~~The apparatus of claim 1 wherein the first receiver further comprises:~~ A wireless signal transmission apparatus for use with a signal source providing first frequency signals, the signal transmission apparatus comprising:

a first transmitter adapted to be coupled to a signal source for receiving first frequency signals, the first transmitter connected to an antenna;

a first oscillator in the first transmitter producing a high frequency carrier signal;

means for combining the high frequency carrier signal with the first frequency signals to form a first modulated signal transmitted by the antenna;

a first receiver remote from the first transmitter connected to an antenna for receiving the first modulated signal; and

means coupled to the first receiver for converting the first modulated signal from the high frequency carrier signal of the first transmitter to a second modulated signal including a lower frequency carrier signal and the first frequency signal;

the first receiver including:

a second oscillator coupled to the first receiver for converting the carrier frequency of the first modulated signal to a lower frequency carrier signal;

frequency control means including:

means for generating an output upon detecting a first frequency signal in the first modulated signal;

means, responsive to the output of the detecting means, for generating a signal proportional to the center frequency of the converted lower frequency carrier signal;

means, responsive to the signal proportional to the center frequency, for determining one of a high or low status of the detected center frequency relative to a nominal center frequency, the means generating

Application Serial No. 09/903,166
Date February 7, 2005
Reply to Office Action dated October 6, 2004

Page 4 of 10

an output corresponding to the determined one of the high or low status of the detected center frequency; and

a controller, responsive to the output for adjusting the frequency of the second oscillator until the output of the detector means is proportional to the nominal center frequency.

8. (Original) The apparatus of claim 7 further comprising:

a third oscillator coupled to the first transmitter for generating a pilot carrier frequency signal;

means for modulating the pilot carrier frequency signal with the first frequency signal and the high frequency carrier signal into the first modulated signal for transmission by the first transmitter to the first receiver;

means, in the first receiver, for detecting the pilot carrier frequency signal and generating an output upon detecting the pilot carrier frequency signal; and

the controller, in response to the absence of the pilot carrier frequency signal, step-wise advancing the output frequency of the first oscillator until the pilot carrier frequency signal is detected.

9. (Original) The apparatus of claim 8 further comprising:

a second oscillator coupled to the first receiver for converting the carrier frequency of the first modulated signal to a lower frequency carrier signal.

10. (Original) The apparatus of claim 9 wherein the second selectable means comprises:

means for selecting one of a plurality of crystals, each enabling the second oscillator to oscillate at a discrete frequency.

11. (Original) The apparatus of claim 1 wherein the signal source comprises a computer generated audio signal stream.

Application Serial No. 09/903,166
Date February 7, 2005
Reply to Office Action dated October 6, 2004

Page 5 of 10

12. (Original) The apparatus of claim 1 wherein the signal source comprises at least one of a CD player, RF audio receiver, AM/FM tuner, and AM/FM stereo receiver.

13. (Currently Amended) ~~The apparatus of claim 1 wherein the signal source comprises:~~ A wireless signal transmission apparatus for use with a signal source providing first frequency signals, the signal transmission apparatus comprising:

a first transmitter adapted to be coupled to a signal source for receiving first frequency signals, the first transmitter connected to an antenna;

a first oscillator in the first transmitter producing a high frequency carrier signal;

means for combining the high frequency carrier signal with the first frequency signals to form a first modulated signal transmitted by the antenna;

a first receiver remote from the first transmitter connected to an antenna for receiving the first modulated signal; and

means coupled to the first receiver for converting the first modulated signal from the high frequency carrier signal of the first transmitter to a second modulated signal including a lower frequency carrier signal and the first frequency signal;

the signal source providing streaming media signals received through Internet communication from a signal source by a central processor, including at least one of a sound generator circuit coupled to the central processor for generating audio frequency signals from a central processor output, and a video generator circuit coupled to the central processor for generating video images from a central processor output.

Application Serial No. 09/903,166
Date February 7, 2005
Reply to Office Action dated October 6, 2004

Page 6 of 10

14. (Currently Amended) ~~The apparatus of claim 1 further comprising:~~ A wireless signal transmission apparatus for use with a signal source providing first frequency signals, the signal transmission apparatus comprising:
a first transmitter adapted to be coupled to a signal source for receiving first frequency signals, the first transmitter connected to an antenna;
a first oscillator in the first transmitter producing a high frequency carrier signal;
means for combining the high frequency carrier signal with the first frequency signals to form a first modulated signal transmitted by the antenna;
a first receiver remote from the first transmitter connected to an antenna for receiving the first modulated signal;
means coupled to the first receiver for converting the first modulated signal from the high frequency carrier signal of the first transmitter to a second modulated signal including a lower frequency carrier signal and the first frequency signal; and
recording means, coupled to the first receiver, for demodulating and recording the first modulated signal transmitted by the first transmitter, the demodulating and recording means further including means for outputting the stored demodulated first frequency signal to the converting means for transmission by the a second transmitter.

15. (New) The apparatus of claim 1 wherein the converting means comprises:
first converting means for converting the high frequency carrier signal to a first converted carrier signal having a frequency below the FM broadcast frequency band; and
second converting means, responsive to the first converting means, for converting the first converted carrier signal to a second converted carrier frequency different from the first converted carrier signal.

Application Serial No. 09/903,166
Date February 7, 2005
Reply to Office Action dated October 6, 2004

Page 7 of 10

16. (New) The apparatus of claim 15 wherein:
frequency of the first converted carrier signal is about 10.7MHz; and
the frequency of the second converted carrier signal is below the low
end of the FM broadcast frequency band.